

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application. Please amend the claims as follows:

Listing of Claims:

1. (Original) A method for negotiating a set of security parameters usable by an initiator and a responder to create a secure path over a network for exchanging information, the method including a plurality of modes, comprising:
 - conducting a main mode negotiation for establishing the secure path and selecting the set of security parameters including a security protocol;
 - conducting a quick mode negotiation for deriving a set of keys usable with the security protocol;
 - wherein at least a portion of the quick mode occurs during the main mode and a quick mode pseudo random number is exchanged between the responder and the initiator; and wherein a protocol security process establishes inbound and outbound protocol security associations.
2. (Original) The method of claim 1, further comprising:
 - conducting a first user mode for authenticating a first user associated with the initiator or responder.
3. (Original) The method of claim 2, wherein the initiator and the responder exchange authentication data that is calculated by application of a hash function incorporating a secret key on data exchanged during the main mode.
4. (Original) The method of claim 2, further comprising:
 - conducting a second user mode for authenticating a second user associated with the initiator or the responder.
5. (Original) The method of claim 1, wherein the main mode comprises:
 - sending, from the initiator to the responder, a set of proposed security parameters

and authentication data;

selecting, by the responder, the set of security parameters from the set of proposed security parameters;

sending the set of security parameters from the responder to the initiator.

6. (Original) The method of claim 1, wherein the initiator identifies a public key of the responder prior to the main mode negotiation and wherein at least a portion a first message sent from the initiator to the responder is encrypted using the public key.

7. (Original) The method of claim 1, wherein the main mode comprises: sending a group advertisement from the initiator to the responder; and comparing the group advertisement to a set of authorized groups; and sending a response from the responder to the initiator.

8. (Original) The method of claim 1, further comprising: exchanging Diffie Hellman key data between the initiator and the responder during main mode for deriving keys for use with an encryption algorithm.

9. (Original) The method of claim 1, further comprising: exchanging a pair of notify payloads between the initiator and the responder; wherein the pair of notify payloads are used by the protocol security process for establishing the protocol security associations.

10 - 17. (Canceled)

17. (Original) The method of claim 15 wherein the unsuccessful security negotiation results from a first certificate sent from the responder to the initiator, wherein the first certificate is invalid, the second security negotiation further comprising:

sending a certificate request from the initiator to the responder that includes an identification payload requesting a second certificate from the responder such that the second certificate is distinct from the first certificate.

18. (Original) A computer-readable medium for executing computer-readable instructions for negotiating a set of security parameters usable by an initiator and a responder to create a secure path over a network for exchanging information, the method including a plurality of modes, comprising:

conducting a main mode negotiation for establishing the secure path and selecting the set of security parameters including a security protocol;

conducting a quick mode negotiation for deriving a set of keys usable with the security protocol;

wherein at least a portion of the quick mode occurs during the main mode and a quick mode pseudo random number is exchanged between the responder and the initiator; and wherein a protocol security process establishes protocol security associations.

19. (Original) The computer-readable medium of claim 18, further comprising:

conducting a user mode for authenticating one or more users associated with the initiator or the responder.

20. (Original) The computer-readable medium of claim 19, wherein the initiator and the responder exchange authentication data that is calculated by application of a hash function incorporating a secret key on data exchanged during the main mode.

21. The computer-readable medium of claim 18, wherein the initiator identifies a public key of the responder prior to the main mode negotiation and wherein at least a portion a first message sent from the initiator to the responder is encrypted using the public key.

22. (Original) The computer-readable medium of claim 18, wherein the main mode comprises:

sending a group advertisement from the initiator to the responder;

comparing the group advertisement to a set of authorized groups; and

sending a response from the responder to the initiator.

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23 - 25. (Canceled)